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Provincial Normal Schools

(Toronto, Ottawa and London)

CALENDAR

1902

ISSUED BY ORDER OF THE
DEPARTMENT OF EDUCATION, ONTARIO

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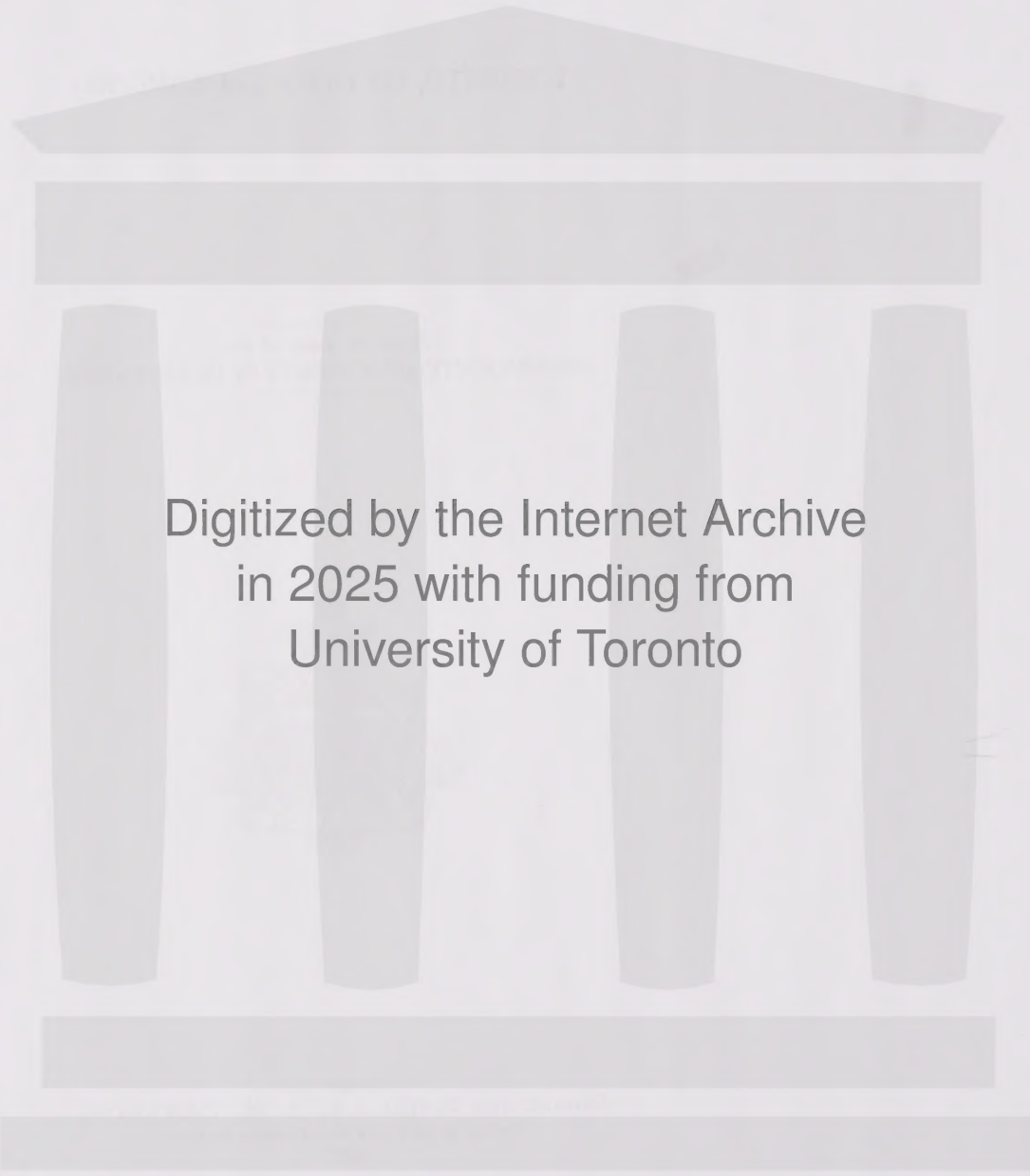
PROVINCIAL NORMAL SCHOOLS

(TORONTO, OTTAWA and LONDON)

Issued by order of the
DEPARTMENT OF EDUCATION OF ONTARIO.



TORONTO:
Printed and Published by L. K. CAMERON,
Printer to the King's Most Excellent Majesty.
1902.



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Provincial Normal Schools.



The Normal Schools are situated in London, Ottawa and Toronto.

All communications and applications must be addressed to the Deputy Minister of Education, Toronto.

All applications must be made on the regular form, accompanied with the fee of \$5 and an Inspector's certificate of at least one year's successful teaching.

The Ottawa Normal School accommodates those living in the eastern and the London School those residing in the western part of the Province.

DEPARTMENTAL REGULATIONS RESPECTING NORMAL SCHOOLS AND KINDERGARTENS.

(See Regulations of the Education Department.)

1. There shall be two Sessions of the Normal School each year; the first Session shall open on the third Tuesday in January and the second Session on the third Tuesday in August. The Sessions shall close in June and December at such dates as may be determined by the Minister of Education. Any teacher who has at least Junior Leaving standing, and who has taught a Public School successfully for one year, or who, after passing the County Model School examination, has taught under the supervision of the Inspector of a City having a city Model School, six months thereafter, may be admitted as a Normal School student. (Reg. 66.)

2. Before being registered, every student admitted to a Normal School shall be examined, in writing or orally, by the Normal School masters upon the books prescribed for the calendar year as the reading course for teachers. Any teacher may be refused registration whose examination does not show a thorough acquaintance with such reading course. The course of study after admission shall be limited and valued for examination purposes as follows:—Psychology and Science of Education, 200; History of Education and School Management, each 150; Methods of Teaching (four papers), each paper, 100; Practice Teaching in the Model School, 400. (Reg. 67.)

3. The Principal of the Normal School shall be responsible for the discipline and management of the teachers-in-training. He shall prescribe the duties of the staff subject to the approval of the Minister of Education; he shall cause Sessional examinations to be held in Temperance, Agriculture, Reading, Writing, Drawing, Music and Physical Culture, each valued at 50 marks and shall keep a record of the same. The staff shall carry out the instructions of the Principal with regard to discipline, management, methods of study and all matters affecting the efficiency of the Normal School and the progress of the teachers-in-training. (Reg. 68.)

4. Teachers-in-training shall attend regularly and punctually throughout the Session and shall submit to such discipline and direction as may be prescribed by the Principal. They shall lodge and board at such houses only as are approved by the Principal. Ladies and gentlemen shall not board at the same house, and shall have no communication with one another except by permission of the Principal or one of the masters. (Reg. 69.)

5. Teachers-in-training shall take a written examination towards the end of each session, to be conducted by the staff, covering every subject on the course of study. The standing of candidates at this examination shall be added to the marks prescribed for the final examination. At the close of each Session candidates shall submit to a written examination conducted by the Education Department. The examiners shall have power to reject any candidate who shows deficiency of scholarship. (Reg. 70.)

6. An examination in practical teaching to be conducted according to the instructions of the Minister of Education shall be required of every teacher-in-training. This examination shall be valued at 200 marks. Any candidate who obtains 34 per cent. of the marks in each subject of the written examinations (the Sessional and final written examination being taken jointly), and 34 per cent. of the marks in teaching (the report of the staff and the report of the special examiners being taken jointly) and fifty per cent. of the aggregate marks shall be entitled to pass standing. Candidates making 75 per cent. of the aggregate marks shall be awarded honors. (Reg. 71.)

7. The terms of the Provincial Model School shall correspond with the Public School terms in cities. The hours of study shall be from 9.30 a.m. to 12 a.m. and 1.30 p.m. to 3.30 p.m. The regulations of the Education Department with regard to pupils and teachers in Public Schools shall apply to the teaching staff and to pupils of the Model School, subject to any modifications that may be added by the Minister of Education from time to time. (Reg. 72.)

8. The Head Master and Head Mistress of each Model School and the Director of the Provincial Kindergarten shall act under the direction of the Principal of the Normal School to which their respective departments are attached, and shall be responsible to him for the order, discipline and progress of the pupils, and for the accuracy and usefulness of the lessons conducted by the teachers-in-training. All members of the teaching staff shall report themselves for duty to the Principal of the Normal School not later than one day before the re-opening of the school after the Easter, Mid-Summer and Christmas vacations. (Reg. 73.)

Kindergartens.

10. No person shall be appointed to take charge of a Kindergarten in which assistant teachers or teachers-in-training are employed, who has not passed the examination prescribed for a Director of Kindergartens; and no person shall be paid a salary or allowance for teaching under a Director who has not passed the examination prescribed for Directors or assistant teachers. No person shall be admitted to the course of training prescribed for assistants who is not seventeen years of age and who has not Primary standing, or who has not spent at least three years in a High School. Any person who has taken the equivalent of such a course at some other educational institution may, on the recommendation of the Inspector, be admitted to training with the consent of the Minister of Education. No person shall be admitted to the course prescribed for a Director unless such person has obtained an Assistant's certificate. (Reg. 54.)

11. Any person who attends a Kindergarten for one year and passes the examinations prescribed by the Education Department shall be entitled to an Assistant's certificate. The holder of an Assistant's certificate, or the holder of a second-class Provincial certificate shall, on attending a Provincial Kindergarten one year and on passing the prescribed examinations, be entitled to a Director's certificate. (Reg. 55.)

12. The examination of Directors shall include Psychology and the General Principles of Froebel's System; History of Education; Theory and Practice of the Gifts and Occupations; Mutter and Kose Lieder; Botany and Natural History; Miscellaneous Topics, including discipline and methods of morning talks, each 100; Practical Teaching, 500; Book-work, 400. There shall also be a sessional examination in Music, Drawing and Physical Culture to be reported by the Principal to the examiners at the final examination. The examination for Assistants shall include the Theory and Practice of the Gifts, (two papers); Theory and Practice of the Occupations (one paper); Miscellaneous Topics, including the general principles of Froebel's system and their application to songs and games, elementary science, morning talks and discipline, (one paper), each paper, 100; Book-work, 400. Any Director sending up candidates to the examination for Assistants' certificates shall certify that the Pease-work and Modelling have been satisfactorily completed. (Reg. 56.)

Reference Books for Kindergarten Teachers

Mottoes and Commentaries of Frœbel's Mother Play—S. E. Blow.
 Songs and Music of Frœbel's Mother Play—S. E. Blow.
 Education by Development—Frœbel.
 Education of Man—Frœbel.
 Pedagogics of the Kindergarten—Frœbel.
 Education by Work—Baroness Von Bulow.
 Guide to Gifts—Mad. Kraus Boelte.
 Guide to Occupations—Mad. Kraus Boelte.
 Educational Reformers—Quick (last edition).
 Anthropology—Tyler.
 Reminiscences of Frœbel—Baroness Von Bulow.
 Fairy Land of Science—Buckley.

Perez' First Three Years of Childhood.
 Symbolic Education—Miss Blow
 Life and Her Children—Buckley.
 Winners in Life's Race—Buckley.
 In the Child's World—E. Poulsson.
 Magic Glasses—Buckley.
 Botany—Spotton.
 Fröbel's Educational Laws—Hughes.
 Guide to Nature Study—Crawford.

Instructions to Examiners.

1. The Presiding Examiner (see Regulation 71) shall, on consultation with the Principal of the Normal School, arrange a time-table for the examination, and shall on consultation with the teachers of the Model School, assign the lessons to the students who are to teach before the Examiners. Both lessons shall not be assigned in the same form or in the same subject, and no lesson shall be assigned more than once in any class.

2. The subject of the first lesson shall be given by the Presiding Examiner to the teacher-in-training the day before, and the subject of the second lesson forty minutes before the lesson is to be taught. After a lesson has been assigned, no hint or assistance of any kind shall be given to a teacher-in-training by any Examiner, or teacher on the staff of the Normal or the Model School. The full time of twenty minutes shall be given to each lesson taught by a teacher-in-training. The lessons taught by a teacher-in-training shall be appraised by different Examiners. Not more than six lessons shall be taught before an Examiner in the forenoon, and not more than four in the afternoon.

3. The regular hours for assembling and dismissing the Model School divisions shall be strictly adhered to. Unless absolutely necessary, the regular teacher in charge of the form shall not be present during the examination of the teachers in-training in practical teaching. In practical teaching the Examiners shall assign the marks according to the aptitude and efficiency of each teacher-in-training, and in all doubtful cases they shall in writing set forth in detail their opinion of the qualifications of the teachers-in-training.

4. After a lesson has been taught, no information or opinion shall be given to the candidate as to his standing or marks. All reports in connection with the examination shall be considered by the Examiners as strictly confidential, and no certificate shall be given to any of the teachers-in-training by any of the Examiners or members of the Normal or Model School staffs.

5. Immediately after the close of the examination each Presiding Examiner shall send to the Education Department a return of the practical examinations in the prescribed form. If, from any unforeseen cause, the Regulations of the Department are varied in any particular case, the Presiding Examiner shall report such variation fully to the Minister of Education at the close of the examination.

SYLLABUS OF THE COURSE OF STUDY

I.—Psychology and the Science of Education.

1. *Psychology*.—Definition. How the facts of Psychology are obtained. How the facts when obtained are built up into the science of Psychology. Analysis of our Mental States. The value of Psychology to the teacher.

2.—*Sensation*.—Definition. Its factors, characteristics and conditions. Theories of Sensation. The Materialistic Theory criticised. Educational Principles inferred from a knowledge of Sensation. Interest, conditions of Impulse.

3. *Attention*.—Definition. Non-voluntary and Voluntary. Conditions of Non-voluntary Attention. Effects. How Non-voluntary Attention may be secured.

4. *Association of Ideas*.—Definition. Images and Ideas. General Laws of Association. Conditions. Varieties. Results. How to form Permanent Associations. Application of Principles of Association of Ideas in Education. Relation of Habit to Association. How to acquire good Habits.

5. *Attention*.—Relation to Voluntary Attention; to Association of Ideas. Characteristics and effects of Voluntary Attention. On what the degree of Attention depends. Activities involved in Voluntary Attention. How to secure and retain Voluntary Attention.

6. *Apperception and Retention*.—Definition of Apperception. Kinds. Results. The use of Apperception. Conditions or Laws of Apperception. Pedagogical Rules based upon the Laws of Apperception. Sayings growing out of Apperception. Retention. Its nature and importance.

7. *Perception and Memory*.—Definition. How it differs from Sensation. Characteristics of Perception. How it is trained. On what Memory depends. Conditions of Retentiveness. Kinds of Memory. What constitutes a Good Memory. How to improve and train the Memory.

8. *Imagination*.—Definition. Kinds. How it resembles Memory and Perception, and how it differs from them. How it is trained. The three aspects of Thinking. The universal element in Thinking. Training of Thinking.

9. *Emotional Growth*.—The Widening of Feeling. The Deepening of Feeling. Stages of Emotional Growth.—Intellectual. Æsthetic. Personal. How taste may be educated. Moral Feelings.—Their nature. How called forth.

10. *The basis of Volition is Impulse*.—Definition of Impulse. What it involves. Classification of Impulses. How Impulses may be trained. The general nature of Volition. Definition of Volition. Distinction between *wishing* and *willing*.

11. *Factors of Volitional Development*.—Formation of idea of End. Formation of Desire. Definition of Desire. Its Origin and Object.

The training of Desires. The Realization of the Desired End. Realization of desired End forms Character. Definition of Character. How trained. Kinds of Control. Physical, Prudential, Moral Definitions of each, and relation of each to the other.

Text Book.—McLellan's Applied Psychology.

For Reference.—James's Psychology and Dewey's Psychology.

II.—The Study of Children.

1. *Things to be observed.*—The development of the senses. Which develops first? Which most rapidly? When examining a new object what quality most strikes them—form, color, taste, use? What kind of questions do they ask? How is their curiosity satisfied? In what is the greatest ignorance displayed? The effect of parentage and nationality on the extent and direction of a child's knowledge. How do children gain ideas of beauty? Of personal rights? Of property? etc. Study the aptitudes of children as shown in drawing, sewing, building, planning, etc. Study the child's physical characteristics. Does he see well? Does he hear well? Has he any physical defects? Is he a follower or a leader?

2. *Attention, Memory, Imagination.*—How can a child's attention be gained? How kept? How can you cultivate attention? What kind of memory is most found in children? At what age is memory the most active? At what age is imagination the most active? Does it increase with age? Note examples real or apparent resulting from imagination. Note the result of reading on the imagination.

3. *Reasoning, Habit, Feeling.*—How soon do children begin to reason? Is there any difference in reasoning power between boys and girls? At what age have you observed children seeking for cause? effect? means? ends? How soon do children begin to form habits? What habits are formed with ease? What with difficulty? How are habits formed? How broken? Likes and dislikes. Interests. Amusements, plays and games. Favorite stories, songs, and myths. Aversions, shyness, self-consciousness, pride, fear, anger.

4. *Discipline.*—When should obedience be required? How? Dealing with children when naughty? When afraid? When shy? When self-conscious? When angry? In what respect do children differ most? What is the influence of heredity? To what extent do environment and training overcome the effect of heredity?

III.—History of Education.

Definition of and Aims in teaching it. Education at Athens.—Plato, Socrates, Aristotle. *Education at Rome.*—Quintilian. *Christianity.*—Its effects upon education. *The Educational forces during the Middle Ages. The Renaissance.*—Its causes and tendencies. *Humanism and the Humanists.*—Sturm, the Jesuits, the Jansenists, Ascham. *The Innovators.*—Their principles—obstacles to their rapid acceptance. *The Realists.*—Bacon, Ratke, Comenius, Milton. *The Naturalist.*—Montaigne, Mulcaster, Locke. Rousseau and Education according to Nature.

Pestalozzi and Pestalozzianism. *Basedow and the Philanthropinum. Jacotot and his Paradoxes. The New Education.*—Its aims and principles. Froebel and the Kindergarten. *The Science of Education.*—Spencer.

Text Books and Books of Reference.—

Quick's Educational Reformers, William's History of Modern Education, Browning's Educational Theories.

IV. - School Organization and Management.

1. *The School Site and School House.*—Area; situation; the well; the outbuildings. The size and proportion of the school building; shape, size and disposition of the rooms. The lighting; importance of proper lighting; how to secure good lighting. Heating and Ventilation—Temperature best adapted for work in school; warming by stoves, by hot air, by hot water, by steam; the advantages and disadvantages of each method; quantity of fresh air necessary for each child; different methods of ventilation. Fittings and Furniture.—Blackboards; different kinds of desks; necessary furniture; general rules for its management.

2. *Classification and Arrangement of Time.*—It aims; the difficulties of; Manifold, tripartite, bipartite and single systems of classification; practical considerations respecting classification, as attainments of pupils, number of pupils, number of teachers, etc; how to draw up a time table; specimen time tables adapted to different kinds of schools.

3. *Discipline.*—What it includes; the qualities of the teacher conducive to good discipline; right and wrong methods of securing it; how to deal with common school troubles. Proper and improper incentives; right and wrong motives; rewards; punishments; characteristics of effective punishment; discipline of consequences; corporal punishment; tasks as punishment; the best kinds of punishment. The uses of recess and play; the necessity for change of work. Uses of written examinations—how to conduct them.

Text Book.—Millar's School Management.

V.—The Course in Physics.

1. *Reasons for Teaching.*—For the disciplinal value of the inductive process; for the utility of physical truths; for training the mind for sensible views of things affecting daily life; to give a general insight into practical applications of physical facts to the purposes of life.

2. *Method of Teaching.*—The pupils must carefully observe phenomena, make experiments and register results, make hypothesis to explain the facts, verify the hypothesis by new experiments and by applying it to explain other facts. This inductive process illustrated.

3. *The Use of Physical Truths.*—Promote industrial progress by stimulating improvement; prevent costly and unphilosophical experiments; obviate ignorant opposition to salutary changes. Illustrations.

4. *Physical Apparatus.*—What to purchase and what to construct; how to make apparatus; precautions in making experiments; how to arouse curiosity in pupils and thus create a desire for scientific knowledge.

5 *The Method of Teaching* the following subjects, viz :—The Constitution of Matter. Phenomena of Gravitation. Motion. Velocity. Acceleration. Energy and Work. Transmutation of Energy. Conservation of Energy. Meaning of Law in Physics. Newton's Laws of Motion. Fluid Pressure. Transmission of Pressure. Archimedes' Principle. Specific Gravity. Properties and Laws of Gases. The Barometer. The Common Pump. The Forcing Pump. Heat. Expansion, Conduction, Radiation. Specific Heat. Latent Heat. Mechanical Equivalent of Heat.

Text Book.—High School Physics, Part I.

VI.—The Course in Botany.

1. *Aims in Teaching Botany.*—The importance of description and drawing. The place and use of specimens, charts, drawings, books. The collection and preservation of plants

2. *Chemical and Histological Preliminaries.*—The composition of air, water, carbon dioxide, and ammonia. The properties of Protoplasm. Structure of the vegetable cell. Mode and growth of tissues.

3. *General Structure of Flowering Plants.*—The use and structure of roots. The general structure of stems. Structure and position of buds. The different parts of the leaf; stipules, petiole, blade; their special modifications. Inflorescence, difference between definite and indefinite; raceme, spike, spadix, corymb, panicle, umbel, head, cyme. The enveloping and essential organs of the flower. The modification of the flower due to cohesion, adhesion and suppression of the various parts. Morphological comparison of the leaf, floral envelopes, stamens and carpels. Fruit and its different forms: the distinctive character of the following kinds: Achene, silique, nut, drupe, berry, pod, capsule.

4. The characters, including the general properties of the following orders, viz :—Ranunculaceæ, Cruciferae, Malvaceæ, Leguminosæ, Rosaceæ, Sapindaceæ, Umbelliferae, Compositæ, Labiatae, Cupuliferae, Araceæ, Liliaceæ, Iridaceæ, Coniferae, and Gramineæ (types contained in text-book).

Text-Book.—High School Botany.

VII.—The Course in Arithmetic.

1. *Introductory.*—Object to be aimed at in teaching Arithmetic. Its practical value. Its value for discipline. Inductive and deductive methods of teaching the subject. General principles to be observed. Common errors in teaching Arithmetic and how to avoid them.

2. *Notation and Numeration.*—The use of concrete objects such as Kindergarten sticks, cubes, etc. How to teach the Numbers from 1 to 9, from 10 to 20, etc. Number Pictures, requirements, apparatus, teaching, etc.

3. *Simple Rules.*—How to introduce the Simple Rules. Devices to insure accuracy and rapidity in addition. The method of Decomposition in subtraction. The method of Equal Additions. The method of Complementary Additions. The two methods of Decomposition and Equal Additions compared. How to teach the Multiplication Table. Multiplica-

tion by one figure, by Factors, by two figures; etc. Connection of Division with Subtraction. Its connection with Multiplication. Which should be taught first, Long or Short Division. Division by Factors. Merits and limitations of the Unitary Method.

4. *Fractions*.—Methods of introducing Fractions and connecting them with previous rules. The Fraction considered as an equal part of a Unit, and as a quotient. Methods of deducing the different rules in Fractions. Decimal Fractions considered as Special Fractions and as Complements of Common Notations. Methods of deducing the different rules in Decimals. Recurring Decimals.

5. *Commercial Arithmetic*.—Practice, Commission, Interest, Discount, Stocks. The Metric System of Weights and Measures. Methods of finding the area of the Rectangle, Triangle, and Circle.

Books of Reference.—The authorized Arithmetics.

VIII.—The Course in Algebra.

1. *The relation between Algebra and Arithmetic*—When Algebra should be introduced—The importance of Oral Exercises—The introduction and defining of Symbols—When and how Negative Quantities should be introduced and taught—Proof of the rules in Subtraction, Multiplication and Division—Horner's Method of Division simply a modification of Ordinary Division—Symmetry and its Applications—Mathematical Induction and its Applications—Highest Common Measure and Lowest Common Multiple.

2. *Fractions*—How they differ from Arithmetic Fractions—Proof of the Rules of Addition, Subtraction, Multiplication, and Division of Fractions.

Equations—When should equations be introduced—Fundamental Nature of an Equation—The distinction between an Equation and an Identity.

Text Book—The authorized Algebras.

IX.—The Course in Geometry.

1. *Introductory* History of Euclid Elements—Defects and Merits of the work. Examination of Euclid's Definitions—How they should be taught. The Postulates and Axioms—The restrictions as to the use of instruments imposed by the Postulates. The necessity of Elementary ideas of Logic and preliminary objective work in all classes before beginning the study of Geometry.

Methods of teaching Geometry—Objects aimed at and errors to be avoided—The importance of Oral Recitation—How to secure the presentation of demonstrations with elegance of form. Euclid's methods of proof. Demonstration of propositions illustrating these methods. Geometrical Analysis and its Application to Geometrical Problems.

X.—The Course in Language and Grammar.

1. *The Nature of Language*.—The connection between language and thought—The composite nature of the English language and the result-

ing difficulties—Aims in teaching language lessons—Hints and suggestions for conducting this work—Materials for language lessons in Forms I. and II.—The correlation of Literature, Reading and Language; of Nature Studies, Reading and Language—The Sentence—Subject and Predicate—The function of each of the parts of speech pictured out.

2. *Grammar*.—Its place in the school curriculum—General principles for teaching it—The course for Forms III. and IV.—Various kinds of sentences; the analysis of each; the Subject and its enlargements; the predicate and its completion and enlargements; the synthesis of each kind of sentence—The parts of speech and how to teach each—The inflexions of each and how to teach them.

XI.—The Course in Spelling.

1. *The Importance of Spelling*.—Inability to spell a sign of illiteracy or indicates a careless student—Association of ear eye, and hand in spelling; habit. Oral spelling. —Its advantages and disadvantages; the use of rules for spelling. Written methods.—Transcription; how to teach spelling by writing.

2. *Methods of Testing*.—Dictation, its advantages and disadvantages; selection of the passage; parts in a dictation lesson; methods of detecting the errors. Methods of correcting mistakes in spelling. General hints for teaching spelling; reviews; collection of misspelled words; the use of the spelling-book.

XII.—The Course in Composition.

Aims in Teaching Composition.—Connection between oral and written composition. Difficulties and how to overcome them. The Nature of written composition for each Form of the Public School Course. Themes to be taken from the Literature, History, Nature Studies and other lessons. The Structure of Paragraphs and the Synthesis of each kind of Sentence; the use of Capitals and Punctuation marks. Letter writing; direct and indirect narration; paraphrasing; introduction of grammatical equivalents; change of construction. Correction of compositions and how to deal with false syntax. Hints for teaching composition with illustrations.

XIII.—The Course in Literature.

The Nature of Literature.—Its two main factors—thought and expression. Aims in teaching literature; the true test of success in teaching it. When to begin this subject and with what to begin—prose or poetry. How to teach literature:—No formal rules; the first step in teaching it; analytic and synthetic plans; illustrations; requirements of the teacher; the use of reading in teaching it. Hints for teaching:—Treatment of the author; memorizing of parts; the use and abuse of grammar, philology, rhetoric, and annotations.

XIV.—The Course in Reading.

Aims in Teaching Reading.—General principles in teaching primary reading. Methods of teaching to read:—Alphabetic, Phonic,

Phonetic, Word, Syllabic, Sentence. The advantages and disadvantages of each of these. Method of presenting first reading lessons. Qualities of good reading and how to secure each:—Audibility, enunciation articulation, pronunciation, fluency, time, and expression. Simultaneous reading; reading for imitation; supplementary readers; detection and correction of errors; drawling; stammering; monotone; etc.

XV.—The Course in Object Lessons and Nature Studies.

1. *Aims in teaching*—Common errors:—Telling; lack of system; continuing the concrete too long. Lessons on form, color, size, qualities; on each of the three sub-kingdoms of nature; summer work, winter work.

XVI.—The Course in Geography.

The Value of Geography:—Its relations to other Sciences as geology, mineralogy, climatology, botany, zoology, etc.; Physiography, General principles in teaching it; Causes and Effects; Comparison; from the known to the unknown. Methods of teaching it:—Inductive, deductive, synthetic, analytic; reasons guiding the choice of each of these. Order of taking up the subject.—Observational, representative, derivative, rational geography; the use and importance of each of these.

2. *Appliances for Teaching Geography*:—Maps, globes, moulding board, natural history objects and samples of products, cuts and photographs, books of travel and newspaper items, railway maps, map sketching, etc. Order of topics in the geography of a continent or country with reasons. Common mistakes in teaching geography.

XVII.—The Course in History.

1. *The Importance of History*:—For guidance, for culture, for intellectual training, for imparting a love of country. What is implied in knowing history. Principles in teaching it; where and when to begin. Methods of teaching it.—Chronological, topical, analytical, synthetical; the value and application of each. Selection of facts to be taught; historical perspective; dates; biography with examples from Canadian and British history; topics in Canadian and British history; the poetry of history; Civics.

2. *General hints*.—Sources of information; oral teaching and the use and abuse of text books; an ordinary history lesson; use of local history and general knowledge of teaching history; common mistakes in teaching it; preparatory lessons for teaching it. How to arouse interest; requirements of the teacher.

XVIII.—The Course in Hygiene.

1. *Respiration*.—The lungs, their structure mechanism, and the chemistry of respiration. Impurities of air; their sources and their effects. Amount of carbon dioxide in air normally; amount which may be allowed with results from respiration, fires, lights, and sickness. Amount of fresh air required, cubic space and hourly supply. Position and size of outlet and

inlet openings. Natural ventilation in winter, in summer,—warming, artificial ventilation. Examination of the air, by senses, by simple chemical test; thermometer, hygrometer, barometer. How the blood is oxygenated.

2. *Climatology*.—Hygienic influences of soils, slopes, marshes, bodies of water. Prevailing winds. Sunlight. Location of school houses. Theories regarding infection and contagion. Description of infectious diseases; period of incubation; simple rules and precautions regarding them. The more common disinfectants, and how to use them.

3. *Protection of the Body*.—Purposes to be subserved by clothing; properties of common materials; effects of compression by clothing. Structure and physiology of skin. Proper conditions for bathing, as to temperature, digestion, exercise, precaution; resuscitation of the apparently drowned. Proximate principles, classes, purposes secured by each kind of food.

4. *Organs of Digestion*.—Description, structure and physiological action of them; deductions. Alcohol.—Not needed as food. Its effects on the tissues. Water.—Its action and purposes in the human system, sources, contamination, examination, color, taste, smell; simple chemical tests.

5. *The Nervous System*.—Kinds of nerve-tissue; uses of each; the brain; the spinal cord; cranial and spinal nerves; effects of alcohol, opium, tobacco, etc., upon it. Amount and variety of work, of home-work. Change and recreation between tasks. Rest and sleep. Defects of vision explained, how remedied, how to preserve the sight. Care of the ear.

6. *Physical Health*.—Physiology of muscle. Rational and irrational athletics. Gymnastics, calisthenics, recreations for summer, winter, for boys, girls. The play ground. Adaptation of seats and desks to the pupils. Deformities caused by neglect. How to treat injuries from accidents.—Fainting, suffocation, strangulation, choking, bleeding from nose, wounds, blows on the head, blows on abdomen.

XIX.—The Course in Agriculture.

1. *The Plant*.—Relations of mineral, vegetable, and animal kingdoms to each other; constituents of plants; relative proportions of combustible and incombustible matter in plants and in different parts of the same plant; nature and sources of plant food; functions of roots; functions of leaves; germination; plant development. Proximate composition of some of the most important crops grown in Ontario.

2. *The Soil*.—Proximate composition and classification of soils; chemical constituents, physical properties, and comparative fertility of the principal varieties of soil; functions of each ingredient in a fertile soil; active and dormant constituents of soil, and the best means of converting the latter into the former; power of different soils to hold moisture, manure, etc.; causes of unproductiveness; influence of rest, frost, aspect, elevation, etc., on the productiveness of soil.

3. *Draining and Tillage*.—Importance of having land properly drained; indications of the need of under-draining; injurious effects of stagnant water in soil; practical advantages which result from under-draining. Objects and effects of tillage; need of thorough tillage; plowing, harrowing, rolling and cultivating; deep and shallow plowing; fall and spring plowing; fallowing, benefits which result from stirring soil; nitrification, etc.

4. *Manures and Seeds*.—Production, management, and application of farm-yard manure; conditions which affect its quality; green-crop manuring. Notes on the most valuable nitrogenous, phosphatic, potash and lime manures. Importance of using clean and pure seed; effect of age on seed; necessity of change of seed; quantity of seed per acre; methods and depth of sowing; etc.

5. *Rotation of Crops*.—Crops which each kind of soil is best adapted to produce; succession or rotation of crops; principles underlying rotation; examination and criticism of different systems of rotation. Smut, rust, etc. Midge, Hessian fly, wire-worm, etc.

6. *Live Stock*.—Points of beef cattle and dairy cow, with diagrams. Breeds of beef cattle, with diagrams and descriptions—Shorthorns, Herefords, Aberdeen-Angus, Galloways and Devons. Breeds of dairy cattle, with diagrams and descriptions—Ayrshires, Jerseys, Holsteins, Canadians, and Shorthorn Grades. Breeds of sheep, with diagrams and descriptions—Leicesters, Cotswolds, Lincolns, South Downs, Shropshire Downs, Oxford Downs, Hampshire Downs, Merinos. Importance of selection in breeding.

7. *Food and Feeding*.—Composition and properties of some of the most important foods and fodders grown in Ontario; nitrogenous and non-nitrogenous ingredients in food; proportions in which to combine these for different objects; importance of a mixture of foods; points to be observed in order to get the full value of food; shelter and warmth as means of economising food; good and bad systems of feeding.

8. *Dairy Products*.—Most important points to be observed in the production and handling of milk; treatment of cream; churning; working, salting and packing of butter; etc., etc.

9. *Forestry*.—Planting and care of trees for shade, shelter, and ornament; varieties best suited for different purposes.

10. *The Beautifying of Country Homes*.—Site, laying out of house, lawn, ornamental trees, etc.; hints as to the best way of making comfortable, and cheerful homes with as little labor and expense as possible.

XX.—The Course in Kindergarten Principles.

1. *Introductory*.—Life of Froebel. Educational theories of Froebel. Description of the Gifts of the Kindergarten and their use. Theory of First and the Second Gifts. Their use as a basis of classification and a means for the interpretation of the material world. Their symbolic use.

2. *Building Gifts*.—The theory of the Building Gifts, including the Third, Fourth, Fifth and the Sixth Gifts. The practical use of each Build-

ing Gift. The theory of the Representative Gifts; including the Tablets, the Sticks, the Rings. The practical use of each Representative Gift

3. *Occupations and Songs*.—The description of the Occupations of the Kindergarten. Theory and practical application of each Occupation, including Sewing, Drawing, Coloring, Weaving, Folding, Cutting and Pasting, Pease Work, Modelling. Theory of the Songs and Games of the Kindergarten. Teaching the Songs of the Kindergarten.

XXI.—The Course in Music.

Aim.—To prepare teachers-in-training to teach Music in the Public Schools. Use of the voice in singing. Musical tones. Practice in singing suitable songs for use in Public Schools.

Development of sense of pitch. Comparison of scale sounds. Study of intervals. Recognition of scale sounds in familiar songs. Rhythm—accent—comparison of measures. First step in reading from the staff. Songs for children. Part singing. National songs. The Scale in all Keys. Classification of voices. Songs for mixed voices. Memorizing songs. Further study of advanced Music.

XXII.—The Course in Writing.

1. *Introductory*.—Historic methods of Teaching Writing, Copying Plans, Tracing Plans, Constructive Plans. Test of Styles of Writing in use at different periods. Characteristics of Good Writing. How to secure these. Materials and how to use them. Ideal forms of the Small and Capital Letters.

2. *Teaching Plans*.—Stages in Teaching Writing. How to Teach Writing along with Reading in the First Class. How the connection between the copy-book writing and the other written exercises of the School is maintained. How to teach writing to 2nd, 3rd and 4th classes. Use of Headlines in Copy-books. Use of Black board. How to correct general faults, and individual faults. How to deal with physical disabilities of the pupils

XXIII.—The Course in Form Study and Drawing.

1. *Forms in Drawing*.—Drawing a method of expression. The Type Solids, why chosen. Order of Study of the Type Solids. General Study of the Sphere, Cylinder and Cube. Their faces and Edges. Special Study of the Sphere. Expression by Language. The Hemisphere. Circle, semi-circle, circumference, diameter, radius. The Cylinder. Axis. Half Cylinder. Rectangle. Angles. Cone. Frustum of Cone. Cube. Square. Triangular prism. Prisms and plinths. Pyramids. Frustum of Pyramids. Objects similar to the above Solids singly or in combination.

2. *Methods of Teaching*.—Work done by teacher, by Pupil. Pupil observes, reflects and expresses. Pupil expresses by Language, by Making, by Drawing. Materials and how used. Divisions of Drawing. Representative, Constructive and Decorative. Methods of Representation. Decoration, Principles of Ornament. The Historic Styles of Ornament.

XXIV.—The Course in Military Drill.

Position of Attention, and standing at ease. Squad drill. Extension motions. Turning—Length of paces for men. Number of paces per minute in slow, quick and double time. Increasing and decreasing the front of a body of men. Moving by fours. Length of pace required. Side Pace, length, etc. (See the King's Regulations.)

XXV.—The Course in Physical Culture.

1. *Aim of Training*—To develop strength, health, flexibility and elasticity of muscle; ease and grace of movement, lightness of action and harmonic poise of bearing.

2. *Correct Breathing*.—Its effect upon the whole organism. Some of the kinds of breathing taught; normal rhythmic, deep rhythmic, dispersive concentrated will breathing and packing breath. Object.—To increase the power and capacity of the lungs, and the power to control breath.

3. *Relaxation*.—Definition. The conscious transfer of energy from one department of nature to another with perfect ease and grace after an extreme tension of body or brain. Relaxing exercises for the fingers, hands, arms, feet, legs, torso, head, eyelids, lower jaw and tongue. Principles, necessity of a dignified carriage of the body, development of force in the leg, step-movement, hip action.

4. *Energizing Exercises*.—Object to direct energy or will force to any part of the body according to the laws of equilibrium and gradual development. Spiral, serpentine, and directing arm movements. The development and elasticity of the muscles of the torso. Opposite movement of limbs. Influence of exercise upon the circulation of the blood, digestion, and upon the nervous system and mental life.

Authorized Text-Books for Normal School.

Lectures on Teaching—Fitch.
 School Management—Millar.
 Educational Reformers—Quick.
 Applied Psychology—McLellan.
 First Year at School—Sinclair.
 Hints on Teaching Arithmetic—MacLean.
 Companion to the Public School Arithmetic—Scott and Barnes.
 Guide to Nature Study—Crawford.
 High School Cadet Drill Manual.
 Public School Domestic Science.
 Hand Book of Method for Teaching Phonic Reading—MacCabe.
 Steps in the Phonic System—Cullin and Niven.
 Elementary Phonetics—Burt.
